

**Goat Anti-Clusterin / APOJ Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1256a****Specification**

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**Goat Anti-Clusterin / APOJ Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P10909</a>
Other Accession	<a href="#">NP_976084</a> , <a href="#">1191</a>
Reactivity	Human
Predicted	Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	52495

**Goat Anti-Clusterin / APOJ Antibody - Additional Information****Gene ID** 1191**Other Names**

Clusterin, Aging-associated gene 4 protein, Apolipoprotein J, Apo-J, Complement cytolysis inhibitor, CLI, Complement-associated protein SP-40, 40, Ku70-binding protein 1, NA1/NA2, Testosterone-repressed prostate message 2, TRPM-2, Clusterin beta chain, ApoJalpha, Complement cytolysis inhibitor a chain, Clusterin alpha chain, ApoJbeta, Complement cytolysis inhibitor b chain, CLU, APOJ, CLI, KUB1

**Dilution**

WB~~1:1000  
E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Clusterin / APOJ Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Clusterin / APOJ Antibody - Protein Information****Name** CLU ([HGNC:2095](#))

## Function

[Isoform 1]: Functions as extracellular chaperone that prevents aggregation of non native proteins (PubMed:<a href="http://www.uniprot.org/citations/11123922" target="\_blank">11123922</a>, PubMed:<a href="http://www.uniprot.org/citations/19535339" target="\_blank">19535339</a>). Prevents stress-induced aggregation of blood plasma proteins (PubMed:<a href="http://www.uniprot.org/citations/11123922" target="\_blank">11123922</a>, PubMed:<a href="http://www.uniprot.org/citations/12176985" target="\_blank">12176985</a>, PubMed:<a href="http://www.uniprot.org/citations/17260971" target="\_blank">17260971</a>, PubMed:<a href="http://www.uniprot.org/citations/19996109" target="\_blank">19996109</a>). Inhibits formation of amyloid fibrils by APP, APOC2, B2M, CALCA, CSN3, SNCA and aggregation-prone LYZ variants (in vitro) (PubMed:<a href="http://www.uniprot.org/citations/12047389" target="\_blank">12047389</a>, PubMed:<a href="http://www.uniprot.org/citations/17407782" target="\_blank">17407782</a>, PubMed:<a href="http://www.uniprot.org/citations/17412999" target="\_blank">17412999</a>). Does not require ATP (PubMed:<a href="http://www.uniprot.org/citations/11123922" target="\_blank">11123922</a>). Maintains partially unfolded proteins in a state appropriate for subsequent refolding by other chaperones, such as HSPA8/HSC70 (PubMed:<a href="http://www.uniprot.org/citations/11123922" target="\_blank">11123922</a>). Does not refold proteins by itself (PubMed:<a href="http://www.uniprot.org/citations/11123922" target="\_blank">11123922</a>). Binding to cell surface receptors triggers internalization of the chaperone-client complex and subsequent lysosomal or proteasomal degradation (PubMed:<a href="http://www.uniprot.org/citations/21505792" target="\_blank">21505792</a>). Protects cells against apoptosis and against cytolysis by complement: inhibits assembly of the complement membrane attack complex (MAC) by preventing polymerization of C9 pore component of the MAC complex (PubMed:<a href="http://www.uniprot.org/citations/2780565" target="\_blank">2780565</a>, PubMed:<a href="http://www.uniprot.org/citations/1903064" target="\_blank">1903064</a>, PubMed:<a href="http://www.uniprot.org/citations/2601725" target="\_blank">2601725</a>, PubMed:<a href="http://www.uniprot.org/citations/2721499" target="\_blank">2721499</a>, PubMed:<a href="http://www.uniprot.org/citations/1551440" target="\_blank">1551440</a>, PubMed:<a href="http://www.uniprot.org/citations/9200695" target="\_blank">9200695</a>, PubMed:<a href="http://www.uniprot.org/citations/34667172" target="\_blank">34667172</a>). Intracellular forms interact with ubiquitin and SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complexes and promote the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:<a href="http://www.uniprot.org/citations/20068069" target="\_blank">20068069</a>). Promotes proteasomal degradation of COMMD1 and IKBKB (PubMed:<a href="http://www.uniprot.org/citations/20068069" target="\_blank">20068069</a>). Modulates NF-kappa-B transcriptional activity (PubMed:<a href="http://www.uniprot.org/citations/12882985" target="\_blank">12882985</a>). A mitochondrial form suppresses BAX-dependent release of cytochrome c into the cytoplasm and inhibit apoptosis (PubMed:<a href="http://www.uniprot.org/citations/16113678" target="\_blank">16113678</a>, PubMed:<a href="http://www.uniprot.org/citations/17689225" target="\_blank">17689225</a>). Plays a role in the regulation of cell proliferation (PubMed:<a href="http://www.uniprot.org/citations/19137541" target="\_blank">19137541</a>). An intracellular form suppresses stress-induced apoptosis by stabilizing mitochondrial membrane integrity through interaction with HSPA5 (PubMed:<a href="http://www.uniprot.org/citations/22689054" target="\_blank">22689054</a>). Secreted form does not affect caspase or BAX- mediated intrinsic apoptosis and TNF-induced NF-kappa-B-activity (PubMed:<a href="http://www.uniprot.org/citations/24073260" target="\_blank">24073260</a>). Secreted form act as an important modulator during neuronal differentiation through interaction with STMN3 (By similarity). Plays a role in the clearance of immune complexes that arise during cell injury (By similarity).

## Cellular Location

[Isoform 1]: Secreted. Note=Can retrotranslocate from the secretory compartments to the cytosol upon cellular stress. [Isoform 6]: Cytoplasm. Note=Keeps cytoplasmic localization in stressed and unstressed cell.

### Tissue Location

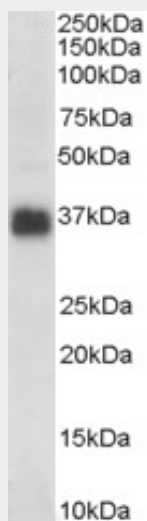
Detected in blood plasma, cerebrospinal fluid, milk, seminal plasma and colon mucosa. Detected in the germinal center of colon lymphoid nodules and in colon parasympathetic ganglia of the Auerbach plexus (at protein level). Ubiquitous. Detected in brain, testis, ovary, liver and pancreas, and at lower levels in kidney, heart, spleen and lung.

### Goat Anti-Clusterin / APOJ Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-Clusterin / APOJ Antibody - Images



AF1256a (0.3 µg/ml) staining of human colon lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-Clusterin / APOJ Antibody - Background

The protein encoded by this gene appears to be involved in several basic biological events such as cell death, tumor progression, and neurodegenerative disorders. However, the function of this protein is unknown. Three transcript variants encoding different isoforms have been found for this gene, and one of them is secreted and processed into a mature form.

### Goat Anti-Clusterin / APOJ Antibody - References

Genetic variations in the CLU and PICALM genes are associated with cognitive function in the oldest old. Mengel-From J, et al. Neurobiol Aging, 2010 Aug 23. PMID 20739100. Association Analysis Between the rs11136000 Single Nucleotide Polymorphism in Clusterin Gene, rs3851179 Single Nucleotide Polymorphism in Clathrin Assembly Lymphoid Myeloid Protein Gene and the Patients with Schizophrenia in the Chinese Population. Zhou Y, et al. DNA Cell Biol, 2010 Aug 25. PMID

20738160. Meta-analysis Confirms CR1, CLU, and PICALM as Alzheimer Disease Risk Loci and Reveals Interactions With APOE Genotypes. Jun G, et al. Arch Neurol, 2010 Sep 3. PMID 20697030. Implication of CLU gene polymorphisms in Chinese patients with Alzheimer's disease. Yu JT, et al. Clin Chim Acta, 2010 Oct 9. PMID 20599866. Association of CLU and PICALM variants with Alzheimer's disease. Kamboh MI, et al. Neurobiol Aging, 2010 Jun 4. PMID 20570404.